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dispensing an excess of resin into the reservoir, and means such as a doctor for removing the excess; in such embodiments the predetermined depth of the pool is established by the depth of the reservoir itself. --

Replace the paragraph beginning at line 27 on page 4 (paragraph 0019) with the following rewritten paragraph.

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-- FIG. 3 shows a chip 10 that has been withdrawn from a resin pool. Evidently, the interconnect side of the chip shown in FIG. 3 was dipped to a greater depth in a resin pool than is shown in FIG. 2, inasmuch as in FIG. 3 the resin mass 34 is shown as being carried not only on the bumps 16 but also on the surface 17 of the semiconductor die. As will be appreciated, the quantity of resin in a resin mass carried by the chip after the chip is withdrawn from the resin pool will depend not only upon the extent of contact to the chip with the resin in the pool, but also upon surface characteristics (for example, wettability by the resin) of the various features on the chip and upon characteristics (for example, viscosity) of the resin itself. A desired predetermined depth to which a particular chip should be dipped in a particular resin composition, to result in a particular desired encapsulation form, can readily be determined without undue experimentation. FIG. 3 also shows a package substrate 40 having metal interconnect pads 42 in an arrangement complementary to the arrangement of the bumps on the chip, and the tool 12 is holding the chip in apposition to the substrate with the corresponding bumps and pads aligned. The tool is poised in FIG. 3 to bring the chip and substrate together as shown for example in FIG. 4. --

In the Claims

Please amend claims 1, 2 and 5 as shown on the attached "Attachment under Rule 1.121", as follows.

A method for encapsulating flip chip interconnects, comprising applying a limited quantity of encapsulating resin to at least interconnect bumps on an interconnect side of a singulated integrated circuit chip, and thereafter bringing the chip together with a substrate under conditions that result in displacement of encapsulant from between the bumps on the interconnect side of the chip and respective bonding pads on the substrate, and that promote the bonding of bumps with the respective pads.

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